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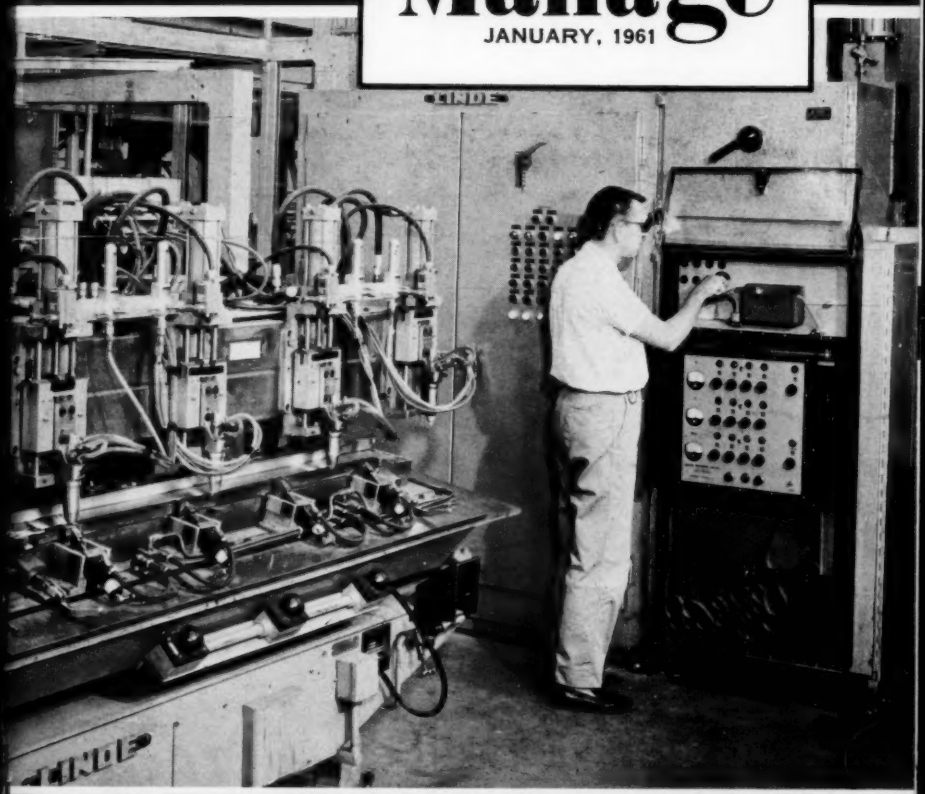
JANUARY, 1961



A MANAGE SPECIAL

AUTOMATION: FACTS AND FICTION, page 4

- BUILDING BETTER SUPERVISORS
- HEAD COACH, PIVOT-MAN OR JUDGE?

L. FRED MAGRUDER

. . . from the NMA president

Report to the Membership

What more appropriate time to take a long, deep look at ourselves—and even delve into the future—than at the beginning of a new year? Although I am thankful for the firm foundation that has been laid during the past 35 years, I believe that for NMA's continued growth and strength we must look at the task which lies ahead of us.

I am convinced that NMA has the programs necessary for progress—programs that will assure management men success in managing the affairs of business and industry for the benefit of all America.

Educational programs offered to clubs are in greater number and of greater depth than ever before. For example, we have launched what I believe will become one of our best recognized programs—"Selling America." This program teaches the principles of the American free enterprise system. It is a civic project that will contribute to the nation, community and bring personal recognition to the management club.

Our aim is to continue to develop fine new programs. This is a never-ending process. These programs will be of interest and value to every ambitious member of NMA. They will also serve as instruments to interest other management people in becoming a part of our growing organization.

In my opinion the NMA today has a bright future, but with it perhaps the greatest responsibilities in its history. These responsibilities, I am certain, will be adequately met by our new national officers and national directors who will give policy representation to all clubs and members.

I firmly believe that with NMA planting the seeds of our future programs properly we—the clubs and members—will harvest a bumper crop of opportunities never before dreamed possible.

To accomplish this we must build the interest of management people in NMA membership. This is not a job for our national officers, directors and staff alone, but requires all of our combined efforts.

I want to take this opportunity to wish each and every one of you a very happy and prosperous New Year.

Manage

VOLUME 13 JANUARY, 1961 NUMBER 4

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FEATURES

Head Coach, Pivot-Man Or Judge? 11
Building Better Supervisors 16
Foreign Competition: Can America Meet It? 21
My Wife Must Stay Out of My Act 40
Shortages Increase Costs and Lower Morale 45

PICTURE STORY

Computer Handles Production Controls 33

DEPARTMENTS

Report to the Membership 2
Act on Fact 28
NMA Club Anniversaries 44
News at a Glance 48
Management Bookshelf 51
Spotlight on Washington 62
Meet Your New NMA Officers 53

OUR COVER

Tape controlled spot welder combines automation with flexibility in production of tail fins for Terrier or Tartar missiles at the Guided Missile Division of Convair in Pomona, Calif. Tape unit to the right controls the position and angle of the moving table to the left. The four welding heads can work simultaneously on four Terrier or Tartar tail fins. Design changes are punched directly into the Mylar tape. (See Automation articles on pages 4 and 33.)

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CIRCULATION THIS ISSUE: OVER 70,000, DOMESTIC AND FOREIGN.

Mass unemployment and fear of becoming a nation of button-pushers are not the issues. . . . Changing skill requirements and personal problems of workers are. . . .

AUTOMATION: FACTS AND FICTION

by Robert G. Wall

With the tremendous advances this country is making in technology, there is considerable talk of the problems of the working man under automation. In reading the literature on this subject one soon discovers that the authors are not confined to any single area. The managers, the labor leaders, the politicians, the economists, the sociologists, the psychologists—all of these specialists have their views on the subject. Being specialists, or experts in their respective fields, they tend to view the subject through their own pair of tinted glasses. Consequently, what each says should be scrutinized. What frequently sounds like a perfectly logical and accurate argument is often no more than the clever manipulation of facts and words. These experts have some difficulty maintaining objectivity even when they want to. When writing on this subject they frequently have no desire to remain objective.

This article presents the ar-

gument that there are two real problems associated with automation and the worker, neither of which is the fairly common fear of mass unemployment. The two problems are the changing level of skill that will be required of tomorrow's workers, and the many personal problems which the worker will face. The article will also present points which refute the argument that automation will cause mass unemployment.

The definition of automation which will apply in this article was presented by Milton H. Aronson:

Automation is the substitution of mechanical, pneumatic, hydraulic, electric, and electronic devices for human organs of decision and effort.

Much of the discussion relative to automation and the worker has centered around what has been termed technological displacement or technological unemployment. The fear, real in some cases and feigned in others (feigned to make a point or to advance a philosophy), is that automation will increase the nation's unemployment by throwing large numbers of men out of work. The memory of the Great Depression is still quite vivid to many Americans and talk of mass unemployment is an easy way to get people to listen to what you have to say. The fact of the matter is that those who espouse this notion are either unaware of the true facts or are purposely ignoring them.

In the first place, in order for there to be mass unemployment, automation would have to be implemented with some degree of rapidity. While it may sometimes seem that automation is making rapid and revolutionary strides, in the economy as a whole it is a slow process. It is slow for a number of reasons. One is the expense of the machinery. Automation requires quite a large capital outlay, and while instances exist where a whole plant has been automated at once, this is usually not the case. A second reason for the slowness of this process is the time required for the installation of the equipment. Idle time is very expensive. These two factors, the high capital outlay and the cost of the time lost due to installation, act as deterrents to the introduction of automation. The shortage of qualified men to design, make, and maintain such machinery is another inhibiting factor. Finally, a good portion of the labor force works at jobs which do not lend themselves to auto-

mation. It is clear, then, that the conversion to automation will be a slow, steady process rather than a rapid, explosive expansion.

A second factor which is overlooked or disregarded by those voicing fear of mass technological unemployment is the growth of the population. Our population is growing at such a rate that the demand for labor is increasing faster than its supply. The working population is composed primarily of people between the ages of 20 and 65. Therefore, it is not difficult to estimate the number of people falling within this range 20 years from now, for they have all already been born. By comparing this with even a very modest estimate of the gross national product 20 years from now it becomes clear that the supply of labor will barely meet, if it meets at all, the demand. In addition to this, organized labor is pushing for the four-day week. This will serve to spread the gap between the supply and the demand.

The next three points arguing against mass technological unemployment were summarized very well in the July, 1957 issue of the Monthly Labor Review:

"So far, the fact of the matter is this: Postwar technological advances have not been responsible for mass displacement of workers in any country or industry. For one thing, automation and analogous innovations are making greatest headway in industries with expanding output and markets and in industries where human power alone could never perform the operations needed to produce the goods we want. For another, normal labor turnover and mobility is coping with a good part of the situation. Finally, in the industrially advanced countries, technological improvements have been introduced against a general postwar background of economic recovery, growth, and expansion and against less severe business fluctuations than in the prewar period."

A final point is the attitude of the management of many companies, as presented by Jacobson, Howard Boone and Joseph S. Roucek in "Automation and Society."

"The attitude of our society toward unemployment has changed to a point where management, if possible, would prefer to absorb displaced workers rather than face the bad public relations which might rebound to their firm."

It seems quite clear from the

above that the fear of mass technological unemployment is unfounded. This, then, is not the issue. The real issue, the problem which will give our society the most concern, is twofold. It is (1) the changing level of skill that will be required of tomorrow's workers and (2) the many personal problems which the worker will face. These are somewhat interrelated, but will, for the sake of discussion, be dealt with separately..

"The day of the unskilled and semiskilled worker in industry —of the nut-tightener and the bolt-fastener—is almost over." While this statement from the July, 1957 "Monthly Labor Review" may be questioned, it does serve to point to the fact that automation is bringing about a change in the general level of skill of the labor force. In the future our society will require fewer unskilled workers and more skilled. The place of the unskilled will be taken by machines. Workers of higher skill will be required to make and maintain these machines. This seems perfectly reasonable. Many, however, fail to recognize it. They believe the opposite to be true. They believe that automation will reduce the worker to the status of a mere button-pusher. A little thought on their part will show that future labor requirements will call for more and better designers, engineers, and repairmen as well as better managers to control the more advanced machinery and the men who work with it. Pres-

ABOUT THE AUTHOR

Robert G. Wall is a personnel assistant with International Milling Company of Minneapolis, Minn. A graduate of the University of Texas, he did graduate work at the University's School of Business Administration. He is a past president of the Gamma chapter of Sigma Iota Epsilon, national honorary management fraternity. He served four years in the U. S. Air Force.

ently, there are about nine million skilled workers in the United States and about five million professional and scientific personnel. Of this total, 250,000 leave the labor force each year due to death, retirement, or other causes. Only 100,000 of these are being replaced annually.

This means that we are currently running up a skilled manpower deficit of 150,000 workers a year. In the next few years, we are going to come face to face with a really serious crisis in manpower—a crisis that will have had its origin in the low depression birthrates of the 1930's. The U. S. Department of Labor estimates that by 1965, we are going to need 137 professional and technical men, 122 managers and officials, 127 clerical and sales people, and 122 skilled craftsmen for every 100 we have today.

Where are we to obtain these people? Although the total population is growing rapidly, the age group between 25 and 45, the heart of the labor force, will not increase in the next 20 years. The growth will be in the younger and older age groups.

The second major problem has to do with the personal problems of the worker. The fact that there will be no mass unemployment resulting from the introduction of automation is little comfort to him when it is his job that is being taken over by a machine. Fewer laborers, routine office workers, and those performing simple repetitive jobs will be needed in the future. As a result there is some insecurity being felt by those occupying unskilled positions. Even those whose jobs are relatively safe for the present are apprehensive about the future. They wonder how long it will be before an automated process will be capable of engulfing their particular job. How can this fear be overcome? It is not a simple task. Assurances are frequently given by management that every attempt will be made to relocate displaced workers in new jobs. Some wonder how effective this really is in reducing the apprehension of the workers. The retraining of displaced workers is a program which is being met by some companies. This, however, is usually possible only in a rapidly expanding business. Further, the promise by management to retrain may be considered as just another voice in the wind to the workers. Training is expensive and takes time. The workers know this as well

as does management. The worker may very well wonder if he will be retained and retrained if he is displaced. If he is not retained, what is he going to do? Will he be able to find another job? What about the five, 10, 15 or more years seniority that he has built up with the company? What about the benefits he will lose if he leaves the company? How is he going to meet his financial obligations until he does find another job? And if he is 45 or 50 years of age, who will want to hire him, particularly if he is unskilled or only semi-skilled?

Often management has no alternative but to let a person go. The worker may realize that this is just one of the hard facts of life, but how much good does this do? He is still out of a job. The economist would tell him to go to that area where there is a demand for his particular type of labor. He will have no trouble finding work there. But how is he to know where this area is, and even if he did know, how sure could he be that he could find a job there? And even if he could be sure that he could get a job, how easy is it to move? The mobility of the labor force is not perfect. Indeed, it can be argued that it is really not very good at all. Just because the average worker possesses an automobile or the price of a plane or train ticket for himself and his family, this by no means is a clear indication of mobility. People tend to adjust to the environment in which they live, and once adjusted they resist change. How many people, especially those middle aged and over, could pull up their stakes and move to another part of the country? Conditions would have to get pretty bad before many of them would do so. Even the young, who supposedly have fewer ties, often won't leave their home city or their home state. The worker often feels that even though his plight might be pretty bad, it could always get worse if he moved. If he should fail to find work in another region he not only would be without a job, but he would be without friends and/or family. Considerable sacrifice, then, both material and emotional, must be made before a worker and his family can move from one region to another.

These are the real issues associated with automation and the worker. These are the things that our society must face in the coming years. Mass unemployment, or a nation of

button-pushers, are not the problems. The problems are what to do about (1) the changing skill requirements and (2) the personal problems of the worker. Currently, to this author's knowledge, no one has come up with the answers to these problems. But the problems cannot be ignored. Managers are people who have to deal with these matters. They are presently looking for answers. What is unfortunate, some are looking for answers to the wrong problems.

"Before you blow your stack—you've never seen me cry, have you?"

Head Coach . . .

PIVOT-MAN or Judge?

by Beryl Harold Levy

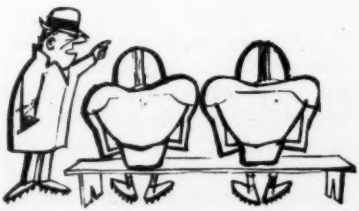
New responsibilities demanded of foreman makes title inadequate

The foreman today has functions which were not dreamt of by his predecessor of half a century ago. These new functions suggest a posture, an attitude, and a relationship which are not adequately encompassed by the title "foreman." This title may even be said to be misleading. In this article I have described three new roles which change the position of the foreman and which suggest the advisability of a more accurate title.

The Foreman as Head Coach

The development of modern management is steadily in the direction of team-building. The techniques of modern management are those of consultation and an effort to elicit the thought and participation of those involved. The good manager works with his men to bring out their individual proclivities and to help them to coordinate most effectively.

What the manager does in an over-all way for the whole plant, each foreman must do for his own department. He in turn has ceased to be an "orders-barker." He does his job best when he evokes the



best his men can give in terms of each one's potentialities geared most smoothly with those of the rest.

It follows that the good foreman must be a leader of men, not a driver of men, and that his leadership must be based upon understanding of the abilities of his men and of the workings of fruitful human inter-relations. The old-line foreman, who was promoted because he had been there longest, or knew how to work the machine fastest, is now required to learn these new approaches which are demanded by modern management. They are demanded today not only because they are in accord with the experience of successful management, but also because they work best in a unionized plant. Others will see to it that the foreman respects the dignity and personality of the employee if top management neglects to do so. The new team-approach is actually more efficient and profitable because it awakens the best use of the human resources which are a plant's greatest asset.

Thus the good manager will not treat his own foremen as so many interchangeable integers, like fungible goods where one pound or one bolt is the same as any other. The good manager knows that "human material" is not material at all; it is a diversity of distinctive personalities. One foreman is better at production than in shipping; one is better at assembly line supervision, another in tailor-made items; one is better at set-ups, another at expediting; one is better at training subordinates, another at quality production; one can be assigned maintenance supervision, another recreation programs; one is versatile, another is specialized; one is readily transferable, another likes to stay put. The list of varieties in human ability and potential is a long one. The good manager gets to know his foremen as men and he learns after a while where each can function best. He does not leave square-peg men in round holes. He does not fail to find out which men are square and which are round. Nor does he fail to release the potentialities for growth and promotion. He will often institute special training or advice for advancement.

In his turn the good foreman will make the same human insight approach to his own little team. He will come to know his men intimately in terms of their skills, their drives, their learning capacity, their aptitudes. He will function experimentally, flexibly and creatively

with his own men, just as the manager has done with his group of foremen.

Thus the team spirit and approach prevail all the way down the line with optimum collaboration in the utilizing of the maximum of individual capabilities.

The term "foreman," it seems to me, is fast becoming a misnomer. It has outgrown its original descriptive character. It meant orginally one who is forward, in the lead, at the head. In one sense that is still true of the foreman. But it places the emphasis wrongly in the perspective of the new management approach. The foreman is not simply one who stands out at the head—and rules over a group of other men who are lesser men or subordinates. In today's perspective the foreman is rather "first among equals." He is more like the captain or the coach of the team than he is like an old-line, no-nonsense boss of the 19th century drill-master type. He is more like a teacher than a tyrant. I believe we would strike the right note if we called them "head coaches" instead of foremen. That changes the whole tone to one of team-work under the friendly guidance of some one a bit more experienced who is always trying to get the team into better working order, with the full cooperation and contribution of each man to the same end.

The Foreman as Pivot-Man

In the judgment of many management authorities the foreman is the key figure in the plant because he is the person through whom top management plans are carried out into operation. The success of the entire plant depends in a critical way on the capacity of the foreman.

Since he occupies this key role between top management and

operational employee he must be able to swing back and forth between the two. Hence I have described him as a pivot-man.

His role as pivot-man is not easy; it is an exacting and demanding one. It takes considerable talent to be able understandably to satisfy the management in its requirements and at the same time to translate them into practical action by developing a sympathetic

understanding of the men at the bench also. He must understand the psychology and the language of management; he must understand the know-how and lingo of the rank-and-file employee. He must be able to please both; and they are often quite different. If he pleases the top management but cannot handle his men smoothly and genially he is just as likely to fail as when he cannot please the top management.

This pivotal role has become even more difficult today because he usually has a No. 2 parallel in the shop steward. The shop steward has a similarly difficult task as he must pivot between management thinking and union thinking. Too often the shop steward is even more competent than the old-line type of foreman because the shop steward has been specifically trained for his hard task by union training courses, whereas too few plants have instituted systematic foreman training programs and too few foremen are able to pick up the necessary human relations skills themselves. Increasingly, however, it has seemed to me the (literally) pivotal importance of the head coach foreman is being recognized and rewarded; and he is being given the aids he needs to do his intricate job effectively.

The Foreman as Judge

Nowadays every good head coach-pivot-man must also have some expertness in labor relations. He is on the firing line and he is the first to hear about it when something goes wrong. Every wise plant management today keeps alert to any rumblings of discontent, dissatisfaction or complaint; and the man on the firing line is the "eyes and ears" of management. The management knows that a minor gripe can roll on into a major upset if it is not attended to. It is much easier to nip a complaint in the bud than to let it ride on and become a formal grievance subject to the grievance machinery of the collective bargaining contract and eventually to arbitration, as provided for in over 90 per cent of our contracts today.

That is why all the emphasis today on the fine art of creative listening is justified. If the man at the listening post doesn't know how to listen, how will

the management ever be alerted to what is going on? There is a lot to be said about the art of listening, which is not half as easy as people suppose. But what I want to stress is the creative aspect of listening. That is to say, listening which is active and astute, listening which penetrates to the real heart of the complaint, not only the surface story being told, listening which responds with suggestions for meeting the complaint.

In the first step of the grievance procedure the hero of this article has the opportunity to dispose of the grievance in some appropriate way.

It is doubtful that he will be able to do so if he listens *only* with a management ear. He must listen with an inner ear which hears the account of the employee with a going-along feeling, with true sympathy and identification of interest. Only in that way can a sound solution satisfactory to management and employee ever be worked out. But he must not be sentimental and a good fellow, always yielding to employee objections. That would be as bad as never heeding them. He must be fair.

He must be fair, in accordance with management policy and the collective-bargaining contract. He must be *truly* fair. It is only if employees feel they are getting a fair shake that you will ever have the pulling together in team spirit which spells successful management. As a representative of management our hero is an executive but as the disposer of grievances he is simultaneously a judge. He must decide the issue in the interests of management, but equitably. If he does not, an arbitrator will. And if he has been unfair, his face will be red, management will have lost face and prestige, and perhaps some money in damages as well. That is why there must be an anticipation of what an arbitrator would decide was fair under the contract. And that is why I have spoken of this third role which I have called that of "executive judge."

Surely a supervisory employee who is to serve as coach, pivot and judge is much more than the traditional picture conjured up by the word "foreman." Any one of the substitute titles I have suggested suits the post better: head coach, pivot-man or executive-judge. Of the three, don't you think the second is perhaps the most adequately descriptive and most likely to catch on? I wonder what the pivot-men themselves will think.

BUILDING BETTER SUPERVISORS

by John North
Training Director
Hope Natural Gas Company
Clarksburg, W. Va.

Seldom, if ever, has any group of people received the attention accorded supervisors in industry. In newspapers, business and professional publications, it is a rare thing to find an issue without one or more articles dealing with their functions. Colleges, universities and private sponsors are offering them an increasing number of workshop and seminar sessions. Good supervisors are important to our modern society, and progressive businessmen are searching for better ways to develop their abilities.

Building efficient supervisors is similar to building in general. Just as any solid structure requires a firm foundation, any good program to build supervisors must be well-founded on sensible policies. To train without first providing such a base is like laying the floor of a house upon bare ground. It has little support, scant protection and no durability.

The important thing is for everyone to agree on the "how's" and the "who's" for training:

How the need for training is to be determined? How this

need will be met? Who is responsible for training? Who will coordinate the program?

A statement of principles upon which the program will be conducted should be included.

With top management in agreement on the policies and principles for the program, you have made a good start. But, in the words of the side show barker, "You ain't seen nothin' yet!" Remember that the actual policies must exist in the minds of the people affected. This is what governs their actions and gets results. Securing thorough understanding and acceptance isn't easy. Psychologists tell us that few people know how to listen well. There is the problem of more than one meaning to be inferred from a word or statement. Coupled with this is the resistance to changes which appear unjustifiable. People need to be involved in freely exchanging their ideas to gain in understanding and acceptance.

Groups of supervisors should be asked to discuss each proposed policy and offer their suggestions to help make it work. Asking them to determine how to make a policy work requires them to think. From this they gain a more thorough and lasting understanding. There is an important by-product of this process—many practical suggestions. From these, top management gains further insight into their thinking, while developing more workable policies and principles. This approach must be sincere. When we say we are interested in getting their ideas and suggestions, we must mean it.

When this foundation is properly laid, it is time to start determining training needs. Almost every major company makes use of an appraisal system. Appraisal systems vary from one company to another. Most of the earlier systems used an analysis of personality factors. Later programs based appraisal upon standards of performance. Now, in some companies, "management by objective" is providing the basis for appraisal. All are aimed at determining the needs of the individual. Each company should adopt a system which takes its special condi-

tions and problems into consideration. However, as the sideshow barker says: "We need to step inside and see the whole show." Regardless of the system, real needs are determined by looking behind each inadequacy to find its cause. For instance, lack of dependability may be evidenced in absenteeism or alcoholism. Is it enough to tell the offender to stop, or resort to disciplinary procedures which may result in termination? A close look might reveal the cause to be a lack of ability to plan and control personal finances. Once an individual learns to plan and control well, he will not need outside occupations to meet expenses or an escape through drinking.

Because all development is really self-development, we must help people find out for themselves their needs and how to meet them. To see one's self realistically is difficult but essential. One solution is found in having each supervisor outline the qualifications of the ideal person to handle his position. This becomes an ideal goal for him to try to attain. His supervisor should discuss it with him patiently and thoroughly until in agreement, acknowledging that, while no one can reach absolute perfection, his accomplishments will increase as he raises his sights. Following this with a self-appraisal usually results in each supervisor taking an objective look at his own deficiencies and sincerely trying to cope with them.

When you reach this point you have resting upon a firm foundation of training policies a superstructure—an individual recognition of developmental needs and a desire to improve. Good development programs, providing a challenge but limited to meeting the greatest needs first, are needed to finish the structure. These take many forms, depending upon the assistance required.

A brief look at the possible ways to develop supervisors shows that if an individual is in poor physical condition you may need to encourage him to seek outside medical, dental or surgical treatment. He may need a vacation and rest. Should he lack sufficient knowledge, other approaches are appropriate. It may be best to provide counselling by his superior or a specialist in the field. Reading assignments, together with follow-up, often prove to be adequate. When necessary, outside seminars utilizing modern techniques, such as simulation, workshop sessions and night school or correspondence school courses may be employed. Sometimes

there are a sufficient number of supervisors with the same need to warrant an in-company course.

If the individual needs psychological assistance or a change in attitude, it may be necessary to seek outside help. Often group therapy in the form of conference discussions, case studies, incident process or role playing proves beneficial. Confidence building through learning to speak and lead conferences usually reflects itself in increased confidence on the job.

As our sideshow barker says: "Let's take a look at one of the most important people in the business." He is the individual who conducts such training sessions. He must be very skillful. He has to guide and encourage, using group rather than individual criticism. He must allow the group to gradually take over an increasing share of the responsibility for operating their own program. In this way, he builds confidence even further, provides self-respect by treating them like the adults they are, and brings about "learning by doing" in as wide a variety of fields as the group elects to pursue.

This method is based on the principle of holding people responsible for their own development either as individuals or as groups. It maintains a strong organization. This results from greater consistency of teaching with supervising. The tragedy of a weakened organization resulting from supervisors being taught one method, but told by their superiors to follow another is avoided. In holding each level of supervision responsible for the self-development of the next, the channels of communication are kept intact. No coordinator of development and training should ever allow himself to come between any two levels in an organization.

Much of the success of a program depends on the person who is its coordinator. He must help everyone in the organization become a good teacher and counsellor. Once this has been accomplished, each level should receive guidance in appraising and developing the next level. Thus, he helps people learn by appraising and developing as well as by being developed. The coordinator should provide necessary contact with outside schools, colleges and universities and maintain a central source of reading and instructional materials. Providing conference space and proper scheduling should be one of his functions. In this way, he follows the principle that the best

teacher is the one who makes himself gradually less necessary to the direct teaching process.

The above procedures for building efficient supervisors provide motivation. This comes from involving people in all of the steps vital to training and development. The writing of policy by top management and the participation of all supervisors affected in discussing and offering suggestions for improving such policy illustrates the point. Appraising subordinates provides a further involvement of all supervisors. Establishing development programs, counselling and helping in their execution, allows further participation. Involvement is the bridge to understanding and acceptance. It provides motivation and motivation means success.

The Golden Rule is a good guide for proper conduct in business. Most everyone wants to adhere to this principle, but many of us find it difficult to follow in actual practice. To be successful in its practice, we must form the habit of taking time to ask ourselves two questions:

How does the other person really feel about this? How would I want to be treated if I were he?

In the foregoing comments, involvement based on the principle of the Golden Rule has been our underlying guide. It has a greater chance of success than any other approach, for it is based on eternal truth—wisdom greater than mortal minds are able to command.

It has been our privilege to try and prove this approach for introducing and guiding a successful training program. We highly recommend it as the best method to follow in building efficient supervisors.

Conference Notebook

Jan. 26-27—20th Annual Northern Ohio Personnel and Executive Conference at Hotel Pick-Carter, Cleveland, Ohio.

Feb. 27—Mar. 3—4th Annual Midwest Work Course on MATERIALS HANDLING ANALYSIS. Technical Director: Richard Muther; Administrative Director: E. S. Avison. Contact: The University of Kansas Extension, The Kansas City Center, 39th and Rainbow Blvd., Kansas City 12, Kansas. Phone: KE 2-1538

Is American business meeting the challenge of foreign competition? The stakes are high: Billions of dollars in sales, thousands of jobs . . . and our prestige as a world leader. . . .

Foreign Competition: Can America Meet It?

by Richard M. McKeon, S.J.

In 1944 I was with our army in England. I still remember the vast ruins of English industry due to German bombing. In 1950 I made a study tour of European countries to behold more terrible devastation in Germany, Austria, Italy and elsewhere. But if I were to return today, what would I discover? The answer is evident to all who made a serious study of the wonderful recovery of the European economy. As a recession hits our economy in the last quarter of 1960, is management fully alerted about foreign competition?

This recovery is seen in the fact that the gross product of Europe increased 88 per cent from 1950 to 1957, while ours advanced 49 per cent. On the other hand, we find a gigantic jump of 156 per cent in Japan. We recall that our productivity from 1948 to 1958 was about 3.6 per cent annually. But we have more food for thought when we learn that in the same period Germany rated 8.3 per cent, Italy 7.7 per cent and Japan 12.7 per cent.

What aided this marvellous recovery? First of all there was the great generosity of the American people as shown in the Marshall Plan and Mutual Security Program. There was also help given in adjusting tariffs and quotas. From many angles a most important contribution was the sharing of technical knowledge. Today many of Europe's factories are superior to ours in layout and

equipment. Taxation is more favorable. Depreciation practices are far more liberal.

With abundant surplus production these nations are eager to sell to other lands including our own. This challenge of competition must be met or the economy will suffer more. To our mind it was stupid of Detroit to laugh at the advent of the small foreign car on our shores. A sad lesson had to be learned before our compact cars began to appear. Now these compacts are invading Europe with marked success.

Let us look more closely at what the United States has done within the post-war years. We have helped a great part of the free world to arise from the horrors left by war to a status of strength and prosperity. The total cost aside from military defense has run over $300 billion.

From 1946 to 1958 our government, meaning we the people, gave $75 billion in gifts and loans. The outright gifts came to $59 billion. Private donors through organizations such as CARE distributed about $7 billion. The amount of private investment by American business in overseas ventures is over $30 billion and increasing at the rate of $2.5 billion a year. When $190 billion, the amount of American purchases in foreign lands, are added to the other items, perhaps we should not wonder that results far beyond expectation have come to pass. And so today our past and even our present generosity finds us facing keen competition in the markets of the world.

Learn Lesson Well

How did our technical "know-how" spread through Europe and elsewhere? First, we sent many specialists in all phases of industry and business to guide and train foreign management and workers. In addition, production teams from many countries have visited the United States from 1948 to 1958. These teams numbered about 8,000 picked men. The greater part of their expenses were paid by the International Cooperation Administration, a government agency.

During this period Japan sent 60 production teams, Spain about 50, Germany about 100, Britain 66, and France more than 300. They studied methods and administration in thousands of plants. They attended seminars at our universities. There is no doubt that this program aided the countries concerned and in many ways brought about a closer bond between them. This is evident when one studies the origin

and growth of the Common Market in Europe. Yet all this emphasizes the current competitive situation our trade must meet.

In the facts under discussion will be found reasons for the new attitude of management toward labor's proposals during the past two years. Peter Grace, president of W. R. Grace and Co., took note of this when he said: "This, of course, is the problem that is at the heart of most of the current labor-management disputes where working conditions and contract provisions covering same have been a greater bar to settlement than hourly wages. Unless management is going to retain and in some cases regain the right to manage, we as a nation will continue to be outclassed in the important productivity which plays such an important role in determining first, our cost of manufacture, second, our export prices and thirdly, our share in the world export market."

High Tariffs Dangerous

And to those who clamor for high tariffs to check foreign competition Grace warns: "But we must not go overboard about this and get into a protectionist panic. This is going to be a tough test of our maturity as the leader of the free world. If we try to take the easy way out by raising tariffs and establishing more quotas, we will do more damage to our prestige and to the faith of other countries in us than billions of dollars in aid will ever be able to repair. We will cause irreparable harm to our friends and weaken everywhere the strongholds of freedom."

Meanwhile, a cheering report has come from Australia. Back in 1939 this nation had imposed tight import restrictions. In August, 1959, they were relaxed. What happened? Goods were ordered and rushed from the United States. Department stores put up signs, "Welcome Back, American Goods."

Many Australians have money to spend. These goods moved rapidly. They gave satisfaction and the price was considered fair. But with the success of these first wonderful sales came warnings about competition. Britain, Japan, and even Russia are eager to gain inroads into the expanding market. Here are some hints for American businessmen—deeper interest in Australia and the requests of customers, better credit facilities, and prompter delivery.

Recently this writer saw a colored movie depicting the great productive facilities of Toshiba, the electrical industry which is often called the "Gen-

eral Electric of Japan." In fact, International General Electric owns over seven per cent of its stock. It was truly fascinating to watch the functioning of the various departments—transistor, generator, railroad equipment, neon lights, washing machines, radio, television, etc.

For the 17 Toshiba plants are very modern with plenty of automated machinery. Employees number about 27,000. Through licensing agreements it has secured technical processes from both American and European firms. It has an agreement with RCA for TV tubes and sets.

Product Invasion

Why do we signal out Toshiba? The simple reason is that the United States looms as a major market. It is pouring a great part of its three million monthly production of transistors into our country. Other products are also gaining. Radios are being marketed under U.S. trade names.

Japanese cameras, cutlery and small cars are part of the invasion. Inexpensive china has played havoc with our domestic market. Japanese-caught tuna has injured the sales of California fishermen.

John A. Barr, chairman of Montgomery Ward, states the reasons why its buyers have gone to foreign shores. "We would much prefer to buy American goods. But we are being forced to buy more and more foreign merchandise because such goods better serve our customers' needs. Our competitors are buying more foreign goods and our customers are indicating a preference for that type of goods. Our customers want foreign goods simply because they want the best values for themselves. The evil of this is that it means less production and consequently fewer jobs in this country.

"It is high time and extremely urgent, in my opinion, that organized labor recognize the seriousness of this menace. Labor must join forces with management in our manufacturing industries to develop a program to meet this threat to our economy. We cannot successfully be economic isolationists any more than we can successfully be military isolationists."

In 1958 about 430,000 foreign cars were sold in the United States. What does this mean? It means that our steel mills were affected. As Detroit produces fewer cars, the steel industry suffers. It follows that jobs are lost. When not only cars but other imports made of steel are considered, the total loss of jobs within recent years

is estimated at 30,000. Accordingly foreign competition in steel, plus automation, explains why unemployment is high in Michigan.

Imports of foreign steel products amounted to 1.7 million tons in 1958 which represented a 48 per cent increase over 1957. In the case of barbed wire we find that foreign imports gained over 50 per cent of the home market.

European and Japanese steel industries are also hitting markets where American products were once firmly in control. To quote from an article in *Steelways,* September, 1959, wherein mention is made of steel pipe and tubing for use in Venezuela, we read: "While the American share of the total Venezuelan market, to take an example, dropped 9.6 per cent by value in 1958, the West Germans and Japanese boosted their shares by around 12 per cent each, the British recorded a 25 per cent gain, the Italians 65 per cent, and the Canadians 40 per cent."

Lower wages, most modern machinery, the best technical knowledge, favorable government policies and generous credit terms have all given foreign firms a great advantage. To some it seems ironical that, after destroying the economy of a nation in war, we have rebuilt it into a strong competitor. To this might be added the comment that the St. Lawrence Seaway has opened up the vast Midwest territory for quick and cheap shipment of foreign goods.

Russia continues to plot its economic war against our nation. A seven-year program has been planned which will injure both the free world and our markets. Although Russian exports are very small at present, new products are being offered. The recent Russian exhibition in New York gave notice of products available to us.

There is no doubt about trade in Latin America being sorely affected. Russia already has a trade agreement with Brazil. For surplus coffee Brazil will receive petroleum, wheat, machinery, equipment and metals. Brazil is carrying on a similar trade with Red satellites.

Worldwide Competition

All this means that United States industries must meet competition not only from firms in Europe and Japan, but also from the Reds. Moreover Russian propaganda has told the Brazilian that he has been exploited by the Yankees whereas Russia seeks only to trade on a mutual profit basis.

Cuba is 90 miles from our

mainland. A few years ago many Americans were sympathetic with the aims of the rebels under Castro. Looking at Castro embracing Khrushchev at the United Nations in September should convince us that Cuba will look to Russia for political guidance. Khrushchev, following in the footsteps of Mikoyan, is expected to visit there. From Cuba flows a torrent of anti-American propaganda to South and Central America.

To add insult to injury, more than $300 million in American property in Cuba has been confiscated and other property will follow. Plans are under way to take over all the sugar mills. Already socialization programs are in order in many factories, the fishing industry and packing plants. Farming under state control is spreading rapidly.

Keep Eyes On Brazil

Moreover the ordinary American is unaware that Japan has made vast inroads into the economic life of Latin America. It will pay to keep our eyes on Brazil which has a Japanese population of over 400,000, and this is constantly growing. A new steel mill costing $50 million has been erected at Minais Gerais by eight Japanese steel firms and other manufacturers. Japanese interests hold 40 per cent of the stock. Many other industries—cement, glass, textiles and so on—are under Japanese ownership and direction. Peru, Mexico and Argentina have welcomed Japanese private enterprise.

Speaking of textiles recalls a full page ad in the *New York Times* which told the plight of that industry. It stated in part: "The continuing growth of foreign imports constitutes a threat to the future of many American jobs. Today . . . textiles . . . face an immediate problem as a result of these uncontrolled imports. The time has come to examine these conditions which so strongly affect our textile industry as well as the national economy."

Suffice it to say, the lower wage rates paid in Europe and Japan do worry our businessmen. The average wage per hour for an auto worker is about 65 cents in Germany, 75 in France, 85 in Britain and $2.60 here. Similar differences hold for other industries. Our fringe benefits amount to about one dollar for every five paid in straight wages. It is only fair to state that fringe benefits are high in many European countries. But our workers are by far the best paid. When warnings are flying about pricing

ourselves out of markets, the wage situation must be studied along with other costs.

To take advantage of low labor costs American manufacturers have set up many plants in Europe. It is especially true about companies building machine tools. This has our labor unions worried. Government action is being sought.

Is American management meeting this challenge of foreign competition with the vision, the energy and the courage which once characterized our leadership? What is at stake? Not only billions of dollars in sales and hundreds of thousands of jobs but the prestige of the United States as the leader of the free world.

In February MANAGE

Pitfalls in Personnel Interviewing *by Roy R. Cunningham*

Personnel men must promulgate standards for their field if they are to gain recognition they deserve.

Profits: Friend or Foe? *by Joseph Glasser*

Management should tell employees what is profit and necessity for same. Only through education of employees in the economics of business can management gain their confidence and faith.

Management's $64,000 Question *by Clarence G. Scholtz*

Are white collar workers next target of unions?

Let's Face It! *by Fritz Bade, Jr.*

A corporation executive whose industry has been hurt by foreign competition emphasizes what American business must do to cope with this growing challenge.

Act on Fact

by James M. Black

"I won't put up with it!" growled Bill Werdann. "Sherman had no right to transfer me. He's pushing me off into another group because I'm a union committeeman. But he won't get away with it!"

So Bill Werdann filed a grievance. Some weeks later he told his story to an arbitrator. But let's see how it all began.

The Forced Transfer

Werdann was part of a 19-member production incentive group which included three union committeemen and the shop steward. It was bossed by a veteran supervisor—John Sherman. Management believed the group was top heavy with union officers, and transferred Bill Werdann to another group in the same department, which he represented on the union committee.

The employee was furious. In his old group he had easily made his incentive pay. Due to mechanical problems, the unit in which Werdann found himself was having difficulty maintaining its incentive earnings. He believed he had been singled out for unfair treatment. He also thought the company should make up the difference between what he earned on the new job and the higher rate he had received on the old one. He pointed to a clause in the contract which said: "The management of the business of the company and its plant, and the direction of its working force—including the right to transfer—are solely and exclusively rights and responsibilities vested in the company, provided that this will not be used FOR PURPOSES OF DISCRIMINATION AGAINST ANY MEMBER OF THE UNION."

Werdann's case rested on the grounds that as a member of the union he had been discrim-

inated against when he was transferred.

The Arguments

When the arbitrator heard the arguments, the union supported Werdann's grievance in this way.

"The real target of the company's action was our committeeman—William Werdann," it maintained. "Another committeeman had even asked for transfer from the group in question, but had been denied. One committeeman, who was inexperienced, had entered the unit only three days before Werdann was arbitrarily moved. This refutes the company's story that it shifted the grievant because there were too many union officers in the group.

"It has been a regular merry-go-round of transfers, and the victim has been Werdann," the union continued. "The company deliberately moved another union officer into his group and on his job. It is well known that John Sherman, the supervisor, did not like him. This was management's real motive in making these shifts—to please one of its supervisors who had it in for our committeeman."

Management took sharp issue with these contentions. Copies of time sheets were offered in evidence to show that during the period that all four union officers had been members of the same production group, they spent altogether too much time handling grievances, and this reduced the output of the unit.

"We realize that union officers must carry out union duties, but we can't have them all concentrated in one production unit," the company said.

It rejected the union's claim that the union officer who had replaced Werdann was inexperienced, and presented time study sheets to back its case. It argued that the test of discrimination is not whether the grievant had less earnings, but whether he was given less opportunity for earnings. (This point the union countered by stating that the work group to which Werdann had been assigned was not meeting standards through no fault of the workers, but because of mechanical problems that company engineers were trying to solve.)

Finally, management contended that the issue was not arbitrable anyway; that the National Labor Relations Board had jurisdiction over such matters. This the union denied.

"The NLRB will not take claims of discrimination where

arbitration provisions may be invoked without these provisions first being exhausted," it stated.

The Arbitrator's Decision

After hearing the arguments, the arbitrator said: "The point raised by the company that matters involving discrimination are properly for the NLRB and not arbitrable seems to have been in doubt for a while. Now it appears to have been resolved by decisions of the NLRB in the direction of arbitration having jurisdiction. In this case, arbitration clearly has the jurisdiction since it does not oust the NLRB of whatever jurisdiction it may exercise in the same issue.

"The union has accepted the opprobrious meaning of 'discrimination' under the terms of this dispute, and assumed that Werdann was a 'target' because of his union activities. We don't have to go that far into the argument. The company has stated frankly that Werdann was removed from his original group because he was a union official. It has also admitted that he was antagonistic to his supervisor, John Sherman, and we can assume that Sherman was antagonistic toward him. On the other hand, it is clear that the burden of one relatively small incentive group having four top union officials was too great, and somebody had to be transferred. From the point of view of management, Werdann was the logical candidate. He and his supervisor didn't get along. So this transfer does not prove 'malice' as Werdann seems to think.

"However, malice on the part of management is not necessarily an indispensable ingredient of discrimination. I must refer to the ruling of another arbitrator who said: 'Even unintentional indirect pressures which might discourage men from accepting union office should be avoided lest in their cumulative effect they undermine and effectually discourage collective bargaining or any of its established proper consequences.'

"It is my opinion that meticulous care should be taken to avoid visiting upon a union official any loss occasioned by a change of such character as was illustrated in this case. The fact that gives me greatest pause is that the group to which Werdann was transferred had been having trouble making its incentive rate. This situation was well known because it was a problem everybody was trying to solve. It may have been just unfortunate that Werdann was the person selected for transfer to this

particular group. Still, it doesn't seem to measure up to that test of 'exercising meticulous care' in handling matters of this kind. For this reason I sustain the grievance. The employee is to be paid whatever difference in earnings he lost by virtue of his transfer for the period involved."

Expediency Not the Answer

Bill Werdann won his argument.

In reviewing the arbitrator's decision you can see the logic of his thinking. The union contract said that while management had the indisputable right to direct its work force, it could not use this right to discriminate against an employee because of his membership in a union. Undoubtedly the company did not intend any overt act of discrimination when it made the transfer. One of the union officials in the group had to go in the interests of efficiency, and one did not like the supervisor in charge. Why not kill two birds with one stone? There was only one thing the company overlooked—the human factor.

Had the company made an objective study of the problem it could have forecast the almost inevitable sequence of events. Werdann would naturally be resentful. Although he and his supervisor were not friendly, his record as a worker had not been affected. Management could also have anticipated that the grievant would charge discrimination if he objected to the move. Unions usually buttress their grievance arguments with claims of discrimination whether or not they are valid.

Werdann had a point. The company's claim that the test of discrimination in such a situation is not whether a grievant has less earnings, but whether he has been given less opportunity for earnings, does not stand up. On the face of it Werdann had less opportunity for earnings.

In any arbitration case, the burden of proof is usually on the company. Management should inspect its arguments carefully before it takes them to an arbitrator. In this instance, the company evidently relied as much on technicalities as it did on substantive proof to justify its decisions.

John Sherman, the supervisor, remains a shadowy figure in the record of the arbitration hearings. Apparently he suggested that Werdann be transferred to another group. Obviously there was friction between the two men. Whether or not the ultimate decision to make the transfer was Sher-

man's, the proceedings of the case fail to reveal conclusively. It can be assumed, however, that it was taken after consultation with higher management. It really doesn't matter.

The primary responsibility of any supervisor is to provide sound leadership. A successful leader doesn't solve his problems by getting rid of them, except as a last resort. If we knew more about the details of the case—the kind that don't come out in an arbitration hearing—we might conclude that Supervisor Sherman had no alternative but to suggest that the employee be moved to another work group. The trouble between the two men might have been one of those "personality clashes" about which little can be done.

We would still have to fault Sherman on his timing. He should have put up with Werdann, at least until the production problems in the second group were straightened out. He had put up with him for some time, so why not a few weeks more?

From a reading of the record it seems that the company's biggest mistake was in applying "slide rule" management to a human situation. The kickback came fast. It points up a moral. Never resort to expediency in employee relations, no matter how logical it appears, if by so doing the rights of an individual are abridged. It's sounder in the long run to work out human relations problems on an equitable basis than it is to try to cut them out with one quick slice of the surgeon's knife.

This case appeared in the Labor Relations Reporter. It has been altered somewhat to illustrate certain principles of supervision. All names are fictitious.

Quote:

All too often in considering the role of government, it is forgotten that most job opportunities in our society are provided by private employers. A constructive fiscal policy should strengthen incentives which lead enterprising people to offer employment opportunities, and foster price-cost relationships which permit production and sale at a profit. Otherwise, "full employment" would mean everyone working for the government.—MONTHLY LETTER, FIRST NATIONAL CITY BANK OF NEW YORK.

Computer Handles Production Controls

Complex Unit Makes Decisions . . . Has a Memory

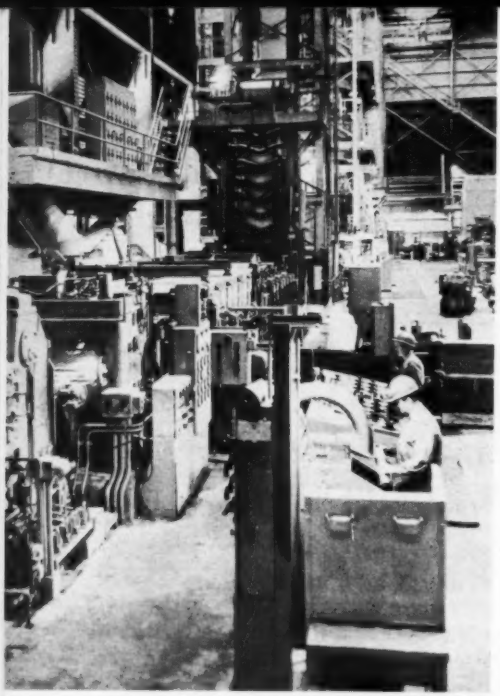
An electronic computer, that makes decisions and has a memory, is controlling production and quality on one of the modern installations at the Aliquippa, Pa., Works of Jones & Laughlin Steel Corporation.

Known as a Digital Control Computer System, the equipment is believed to be the most complex computer system in the steel industry. It is in operation on the new continuous annealing line at the Tin Plate Department. The annealing line heat-treats strip steel before it is coated with tin to form tin plate, the material can manufacturers use to make tin-coated steel cans.

The new system controls variables in the annealing process to achieve greater efficiency and a more uniform product, according to A. T. Lawson,

(continued on page 36)

***A COIL TICKET** containing various production and accounting information is printed by a new digital computer on the continuous annealing line at the Aliquippa, Pa., Works of Jones & Laughlin Steel Corporation. The new computer types out this information on a data log typewriter as a coil of strip steel concludes its cycle through the annealing line.*



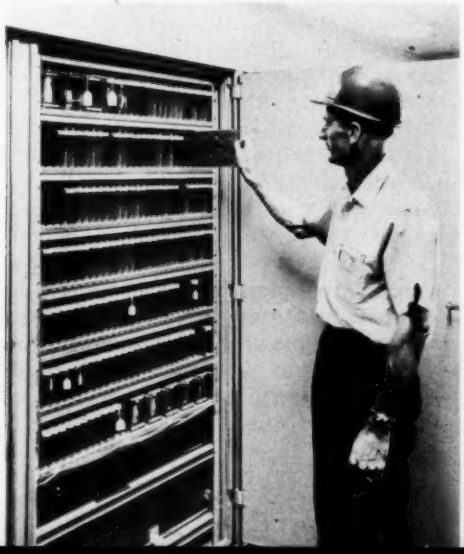
This Machine

A LOADER on the continuous annealing line prepares to pass along information concerning a coil of strip steel in the operation of J&L's new digital computer control system. A punched card containing production information is fed into the computer here at the entry end of the annealing line. A corresponding identification tag is then sent to the line's discharge end where additional data on the actual annealing process is typed on it by the computer. This maintains an immediate record for each coil.

HERE THE DIGITAL COMPUTER on the continuous annealing line records the performance of the line at frequent intervals. Observing the report of the computer as it "checks" itself is an annealing line operator.

chine "Thinks" for Itself

***A PUNCHED CARD** inserted into the computer "card reader" as a new coil enters the line. J&L employee also select switches at right to record the coil number, weight, and inventory code. The computer will control variables on the line, collect data, and analyze production and accounting methods.*



***AN AREA FOREMAN** inserts a printed circuit card into the input-output logic rack of the new digital computer control system. Its other functions include data acquisition, and production analysis and accounting.*

J&L's vice-president in charge of production. Its other functions include data acquisition, production analysis, and accounting, Lawson said.

Here are some of the things the computer does:

1. Plots a method of operation whereby the continuous annealing line can be run at its most efficient speed and with the greatest product quality without abuse of the equipment.

2. Provides "instant" accounting records on punched tape for each coil of steel as it emerges from the line.

3. Reduces furnace downtime by checking the various sensory devices within the furnace for off-normal practices or conditions.

4. Provides timely, accurate operating data in typewritten form, enabling operators to make production decisions with a minimum of interpretation.

5. Provides increased knowledge of the continuous annealing process which will permit better design in future annealing lines.

6. Possesses the capability of being reprogrammed to match advances in the art of annealing and in computer control.

The computer also possesses the unique ability to recognize abnormal conditions or failures, not only in the line but also in its own performance.

It is the first computer of its type ever installed on a continuous annealing line or a steel processing line of any type.

The complexity of the new J&L computer is due to the many variables in the annealing process with which it deals. Most industrial computers control only one or two variable factors.

Lawson said computer control is ideally suited for the continuous annealing process where cold rolled strip steel—work-hardened in earlier processes—is brought back to a useful degree of ductility or softness. This is done at rates up to 2,000 feet per minute.

In this process, the steel is heated to a temperature between 1,100 and 1,330 degrees Fahrenheit, held at that temperature for a period of time to permit grain growth, and then cooled at a controlled rate to about 900 degrees before being cooled to room temperature. This is accomplished in four separate sections of the line (heating, holding, retard cooling, and fast cooling chambers).

Strip steel thus treated then is temper-rolled to impart the proper degree of hardness, and coated with a thin layer of pure tin to become tin plate.

The annealing process is continuous, and the cold rolled steel may vary in its dimensions. Thus, steel of certain gage and width and requiring a certain specified annealing practice may be welded to another coil of steel of different dimensions and requiring a different annealing practice.

The process also may be affected by chemical composition of the strip steel, variations in time and temperature of the annealing furnace, and brightness or heat-absorbing capacity of the strip.

The computer system facilitates the operation of this continuous process by automatically tracking each coil of steel through the line and regulating furnace speed and temperature to achieve the proper annealing cycle, despite the varying requirements.

The finished product is inspected and classified automatically, making quality records for each coil instantly available. The computer system also monitors line operation and collects and computes the data required to analyze characteristics of the process. Incentive and administrative records also are prepared on punched tape while the coil is in process.

The computer system has been installed on the furnace zone temperature regulators. A selector system also has been installed whereby any one or all furnace zones can be controlled manually.

In the operation of the computer, operating data such as steel width, thickness, chemical analysis, desired annealed hardness, steel grade, and a specified line operating speed are prepared on a punched card. The card also contains order accounting data such as the order number, heat number, incentive pay standard code, coil diversion code, and the promised shipping date.

As the coil enters the line, the punched card prepared for that order and heat number is inserted into a card reader at the entry coil holder. The operator then selects switches at the entry end for the coil number, weight, and inventory code.

As the head end of one coil is welded to the tail end of the preceding coil, the welder signals the computer to "read" the entry card reader and the manual input data. The computer also "remembers" the position of the weld.

The entry section then is restarted, and the new coil enters the line. Pulse type tachometers on the furnace section and at the delivery section provide a signal to the computer

for each foot of steel that passes through these sections.

The computer will track the welds from the entry welder through the entire line. As the weld marking the head end of each coil reaches the guides before and at the end of the furnace, the computer will check the order data to determine whether the strip following the weld is wider than that preceding it. If it is, the sideguards will be opened automatically and an alarm sounded at the operator station. The operator then can adjust the position of the sideguards.

As the head end of a new coil or order reaches the furnace, the computer will reset the furnace temperature controls to the specified values, as indicated on the order cards.

Inspection devices at the delivery end of the line inspect and classify each foot of steel strip, and as the weld marking the end of each coil passes the delivery shear, the identity data fed in at the entry end for that coil are typed automatically on a coil log typewriter at the annealer's station. The computer also flashes the position of each weld in the furnace by means of signal lights, and warns of a weld approach at the delivery end of the line. Thus, operators can prepare for shearing operations.

When the weld at the end of a coil is sheared, the computer types out all footage classification data for that coil on the coil log typewriter at the annealer's station. The log includes the total footage in the coil, footage in each defect category if any, the coil weight, percentage of prime product, percentage in each defect category if any, and the time required for processing the coil.

A coil ticket is printed automatically with the operation of the shear at the delivery end of the line. This ticket is an identification tag which includes the line number, the mill work shift, the crew identity code, date, coil number and weight, and a coil diversion code computed from the percentage of prime product.

The computer records all furnace delays, and automatically types the clock time, time elapsed, and other delay data on the coil log typewriter. It tracks any footage which may be ruined by a delay in the furnace.

The computer also "checks" the performance of the line every 10 seconds and every 10 minutes provides an over-all picture of the various sensing devices recorded on the data typewriter.

Reliability of the computer

system is increased by a series of tests performed by the equipment itself. Periodically, it performs a series of programmed calculations, exercising as many of its components and elements as possible. The resulting signals are checked against known correct values to determine any discrepancies.

The computer also is programmed to examine for reasonableness, signals from the various sensing devices. An alarm is sounded if any of the sensing devices transmits an unreasonable signal.

The final protective program is known as a "madman" sequence. This provides for a check against the possibility that the computer may "go mad," perform illogical operations, and lose the ability to check itself. This is accomplished by a check in operations, at certain specified times. If this check is not made, a lock-out relay is energized, and the computer is automatically shut down.

Requirements for the computer were developed by J&L engineers, and the computer was designed by General Electric Company, and built by General Electric Computer Department, Phoenix, Ariz.

NMA MANAGEMENT CONFERENCES

Jan. 28—Columbus, Ohio. Sponsored by Central Ohio NMA Council. Contact Alvin Shames, North American Aviation, Inc., Columbus.

Feb. 4—St. Louis, Mo. Sponsored by St. Louis Area NMA Council. Contact Richard West, Granite City Steel Company, Granite City, Ill.

Feb. 11—Toledo, Ohio. Sponsored by Toledo Foremen's Club. Contact W. D. Watters, The Toledo Edison Company, Toledo.

Feb. 11—Springfield, Ohio. Sponsored by Northern Ohio Area Council. Contact Byron S. Thomas, 335 South Burnett Road, Springfield.

Feb. 18—Battle Creek, Mich. Sponsored by Wolverine NMA Council. Contact Norman Madsen, Keyes Davis Company, Battle Creek.

Feb. 24-25—Fort Worth, Texas. Sponsored by Convair Management Club. Contact John N. Watson, Convair, a division of General Dynamics Corporation, Fort Worth.

Whoever started all this propaganda about the important part played by the Company Wife, anyway?

As far as I am concerned, a woman's place is in the home, not in my business career. I have learned from bitter experience that a manager's wife must stay out of his act.

From the night I came home with word of my promotion, something began happening to my wife. Her first reaction was sudden, unrestrained rapture. (As a matter of fact, most of her reactions are sudden and unrestrained). She squealed and smeared me with lipstick and spilled things around the kitchen until there was nothing to do but clean up the mess (the kitchen, not the gal, who was and is a living doll) and take her out to dinner.

She calmed down temporarily, then, but not for long. The very next day, there was a new look on her face. Pride, maybe, but something else, too. A new tenseness, and determination—and my wife has never been very determined. Of course, I was feeling pretty tense and determined to make good myself, as well as a little scared, so I didn't pay too much attention.

That night when I got home my wife took me in the living

room and showed me a lot of new clothes, spread around. She had rushed right down town and bought a new wardrobe. A suit and something to wear to company dinners, and another outfit for afternoon affairs. When I protested, she explained that she'd be needing these things in keeping with her new responsibilities. Then she modeled them all for me and looked so cute in every one that I couldn't lay the law down right then. But I should have.

After that, things snowballed. They were snowballing at work, too, and I was finding this was quite a job I had taken. Otherwise, I might have kept a tighter check on my wife. Besides, everything she was doing was so different, so out of character for a girl who had never been very aggressive or ambitious, that I could hardly believe what was happening.

Woman's place is in the home, not in her husband's business career, this manager learned—the hard way.

The first thing I knew, she was giving a party. A big, fancy luncheon for all the wives of the guys who worked under me. She said it was for my sake, to cement good employee relations, and that she wanted so much to be a credit to me. So I let her go ahead, and she worked like a dog on the project.

From some of the cracks I heard around the plant later, though, the party wasn't exactly a smash success. The boys let me know their wives thought mine was playing the "No. 1 lady" pretty heavy, and I know that party did me a lot more harm than good. But I didn't say anything about it to my wife, because I hated to hurt her feelings after she'd worked so hard.

So, next, the gal began joining committees, and working on charity drives. She had never gone in much for that stuff before, had said that a lot of it was a waste of time, and that her job was looking after me. I reminded her of this now, but she said,

"Now, doing my share in the community is looking after you. It's part of our new duties!"

After that, she seemed to be out most of the time at committee meetings, or else on the telephone—often when I was trying to call home or wanted to phone the plant at night.

My job was getting pretty rugged, and sometimes I wondered if I would make the grade, and wanted to talk to my wife about it, just to hear her say she knew I could do it. But she hardly ever seemed to be available. The frozen dinners she kept poking in the oven after getting home late didn't help the way I was feeling, either.

Then I heard that she had been trying to wangle us a membership in one of the town's most exclusive clubs. I really hit the ceiling at this.

"What are you trying to do, be a social climber?" I yelled. "I'm too busy right now to have time for any new club, anyway. And you know we don't belong with that well-to-do-crowd!"

"Not now. But now that you're a manager, you'll have to learn to meet new people, do new things, and we'll both have to have more smoothness and polish. People have to grow with changes in their lives, you know. And it's only the people who can grow and change who succeed. It says so in the book."

"What book?"

"One of those I've been reading on how to help your husband succeed in his job. I've been reading a lot of articles about it, too." And she was gone, off to some meeting or other.

There must have been something they forgot to put in the book, though. We were not accepted for membership in that plush club. I was relieved and glad, but to tell the truth it was a blow, too. My pride was hurt, and right then, when I was having trouble living up to the job, my pride was feeling a little tender, anyway.

That seemed to slow my wife down a little. But later I found she was being an active little "helpmate" in other ways. One day I got on the wrong telephone line and overheard her voice, talking to my secretary. My wife was being very friendly and confidential and bright about company business, and she was asking too many questions, on subjects I would certainly label classified.

My secretary was embarrassed when I quizzed her about it later. She admitted, but tactfully, that my wife had become quite chummy with her.

"I'm sure she's just trying to help you, by learning all she can about the company," she said. "But to be honest with you, Mr. ———, sometimes it can become a problem. I have seen it happen before. I've seen wives who tried too hard to help and really got their husbands in trouble. There was

one, I remember, who used to keep telephoning her husband's boss . . ."

That did it. I went home that night and had it out with my wife. It seems that "the book" had urged wives to "make a pal" of their husbands' secretaries. It also had urged them to learn all about their jobs, so as to be able to advise their men intelligently.

"You've seemed so quiet and preoccupied that I haven't been able to learn anything about your work from you. And how can I help when I don't have all the pertinent information?"

I blew my top then, finally.

"The only pertinent information you need to have is that I like my wife home when I get here, and not on the telephone talking to her chairman, either. And I like to have a real dinner instead of some delicatessen snack, and I want my wife ready to listen to what I want to tell her."

"But the good Company Wife has to be so much more than that—"

"Hang the good Company Wife! The good Company Wife has been dreamed up by some fiction writer! The good Company Wife is only a good wife, who is ready with a good dinner and moral support, if her husband shows the need for it."

"But the book says it's no longer as simple as that!"

"Hang the book, too! There's been entirely too much guff written, and it has wives all mixed up and overly worried about their responsibilities and concerned about their own importance to their husbands' careers."

You mean, said my wife, that wives aren't important?

Of course they're important, I told her. But important for providing love and encouragement and assurance that they believe in their man and, no matter what, they're for him. That's the most valuable contribution any management wife —any wife—can make.

My wife amazed me, then. "But that's wonderful," she cried. "Then I can go back to just being myself and doing what I want to and not worrying about my new role. I never wanted to be a social climber or business expert, you know. It was just to help you!"

Believe it or not, I believe my wife. She now seems perfectly contented keeping house and leading her usual social life with good friends (although she has kept one charity committee job where she feels she's really helping) and listening whenever I want to blow off steam about work.

Somehow, the work is getting better, too. I'm really on top of the job, now.

If I had it to do over again, though, and knew what I know now, there are certain rules I would follow, effective when my promotion was announced:

1. I'd set my wife straight as to just what her role would be with respect to the new job, and what new demands—if any—would probably be made on her. (I'd let her go buy a new dress, to celebrate—but not to live up to her new "status.")

2. I'd make it clear that the wife's role is always a background one, and that she should never inject herself into the company, even by phone calls.

3. I'd set a definite policy with regard to co-workers and their wives, based on "doing what comes naturally," with friendships based on common interests, not business objectives. There would be no "artificial" social life imposed; that is, entertaining subordinate employees en masse, and no entertaining superiors until they had invited us first.

4. I'd impose a rule of silence, make sure my wife talked about my job to nobody, especially my secretary, other employees, or their wives.

5. I'd make sure my wife felt important and beloved for herself, not valued as a cog to further my business career. I'd let her know that I'm capable of taking care of that by myself.

NMA CLUB ANNIVERSARIES

FEBRUARY

5 Years:	Harbinson-Walker Management Club	Mt. Union, Pa.
	Santa Monica Bay Management Club	Santa Monica, Calif.
10 Years:	North American Aviation Management Club	Columbus, Ohio
15 Years:	Bendix Supervisors' Club	South Bend, Ind.

A foreman tells how . . .

SHORTAGES Increase Ç̇o$ts and *Lower* Morale

by Art Semle

Anyone connected with management, whether it be a giant corporation or a small job shop, knows that material or parts shortages are a constant headache. But few realize how this headache can sky-rocket labor and production costs; and even fewer ever stop to consider what it can do to employee morale.

Here is a simple outline that pin-points where the time and actual monies are lost through shortages.

Just circle any item which could concern your particular plant and its operations, regarding shortages. If you wind up with lots of circles; do something about it before the circles are under your eyes from worry and lack of sleep!

Labor Costs Are Increased By Shortages

1. There is a tendency on the part of the worker to delay production of his unit in the hope that the shortage will arrive by the time he is ready for it.

2. A worker will not try to meet estimated time requirements, knowing that the unit cannot be completed.

3. Where a worker is given more than one unit, to be built as far as possible, double handling of excess parts is necessitated by the foreman, leadman, worker, expeditor, and stock clerk.

a—Parts may be mislaid or lost.

b—Parts or partially completed units may be damaged in the extra handling.

c—Parts which have been fitted, and are not interchangeable may not be carefully marked and may be used on the wrong unit.

d—Bearings, sliding parts, bevel meshes, etc., may be exposed to dust or metal chips and the possibility of rust and corrosion.

4. Many work hours are lost by stock clerks, expeditors, clerical workers, leadmen, supervisors, and other personnel anxious to expedite the needed part or parts.

a—Constant double-checking with stock, receiving, purchasing, etc.

b—Extra paper work for all concerned.

c—Extra telephone conversation.

d—Checking and rechecking the number or numbers of parts short.

5. Shortages create unnecessory overtime.

a—Where shortages are delivered close to delivery date.

b—Where supervisors are anxious to meet quotas.

c—Where shortages are delivered after supervisors have obligated themselves with new work orders.

d—Where units are delivered to inspection or test departments close to delivery dates.

6. Production groups are interdependent. When shortages are delivered, all concerned cannot proceed immediately.

a—Inspectors must inspect sub-assemblies.

b—Final men must wait for sub-assemblies.

c—Inspectors must inspect final assemblies.

d—Test must wait for final inspection.

e—Where government inspection is required they must wait for all the above procedures.

Production Costs Are Increased By Shortages

1. Production workers idled by shortages must work on unfamiliar units. If intricate, this entails instruction, correction, possible rework, and scrap. Production time always increases when workers are doing unfamiliar work for short periods.

2. Haste and quality are not synonymous.

a—A rushed machinist or assembler is likely to mistake print measurements, causing rework or scrap.

b—Where parts are close to tolerance, the machinist or assembler may improvise. Company or government inspectors may object, causing rework or scrap.

c—Haste causes laxity in precision standards and quality inspection. Customers justifiably gripe!

3. Facilities may not be ample to meet requirements when shortages are covered.

a—Production personnel may be engaged in new commitments.

b—Measuring instruments, precision tools, jigs and fixtures, are not available to all workers doing the same operation.

c—Where drilling or lathe work is necessary, workers must wait for available machines.

d—Inspectors and test personnel are unable to keep pace with units arriving in rapid succession.

Shortages Lower Employee Morale

1. Employee loses his sense of teamwork and morale falls.

a—He feels that the members of the team responsible for covering shortages are not cooperating.

b—He loses respect for management's ability to manage.

c—He becomes frustrated because he is never able to complete what he starts.

d—He loses respect for his direct supervisor because the supervisor cannot supply his needs.

e—He feels a sense of futility in attempting to keep up his production record and pride in his work when he sees partially completed units laying all over the area.

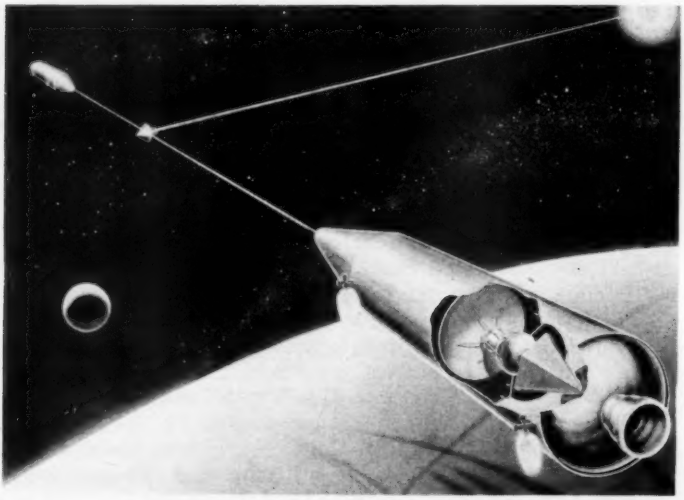
f—Through a weird mixture of loyalty and selfishness he understands that quality controlled merchandise, delivered before commitment dates, results in reorders and new orders. By contrast, he thinks that rushed production, necessarily lower in quality, delivered after commitment dates results in less reorders and new orders, and sometimes causes cancellations of present orders. So he draws the obvious conclusion: shortages can cause layoffs! (Ed. Note—Is his thinking very wrong?)

NEWS at a glance

Anyone for Mars?

Scientists at Lockheed Missiles and Space division have proposed a relatively simple and cheap "cocoon" system for a manned flight to Mars. The new design differs radically from other proposed Mars systems by using two of the huge chemical booster rockets (needed to attain the 36,000 mph speeds of a Mars journey) as part of the "Mars ship" itself. The boosters would be strung together on a half mile of steel cable and rotate around a common center to provide essential simulated gravity.

Artist's conception below shows the "Mars ship" near Mars. Glowing object trailing from the center of rotation is a nuclear reactor to power air supply and other life support systems. Cutaway shows return-to-earth vehicle "cocooned" inside booster. Return ship includes saucer-like steel drag parachute for slowing the return vehicle in the Martian atmosphere and allowing it to



be "parked" in orbit around Mars.

Also shown are fuel container for return trip (smaller sphere); crew cabin and life support systems (larger sphere); also arrowhead-shaped glider for re-entry into earth's atmosphere and landing back on earth. The rocket booster at the opposite end of the cable contains equipment for a Martian landing.

1,000 Eyes Watching

A 1,000-eyed electronic device is watching over this country's top space secrets.

Developed jointly by Teletronics Security Systems, Inc. a subsidiary of TELautograph Corporation and Thompson Ramo Wooldridge, Inc., the new device is putting science to work for the first time in the security field.

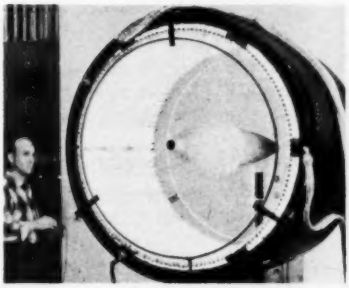
It has been installed at the Thompson Ramo Wooldridge, Inc. plant in Canoga Park.

Resembling the control board of a small computer, the console of the electronic guard, like a spider sitting at the center of its web, can extend up to 1,250 electrical "fingers" to every corner of the Thompson Ramo Wooldridge installation.

An open door that should be locked; an overheated computer; a burned out light bulb; or an inoperative valve; all will be noted immediately and cause a light to flash on at the control board.

Hot Under the Collar!

The "thermal barrier," a major obstacle to man's successful venture into space, is being overcome with the aid of a modern, sophisticated version of the common light bulb. "Thermal barrier" tempera-



tures are simulated in photo above in this nose cone test at the National Aeronautical and Space Administration's Langley Research Center in Virginia. Heat produced by 225 2500-watt tubular General Electric quartz infrared lamps in the cylindrical radiator reaches 3100°F., about a third as hot as the surface of the sun. Such tests facilitate the nation's efforts to overcome the re-entry problems faced in rocket, missile and space-vehicle programs.

HALF CENTURY OF FLIGHT

In this historic photo Lt. T. G. Ellyson, first Navy aviator (right) gets flight instructions in a Curtiss Navy A-1 Hydroairplane from Glenn H. Curtiss.

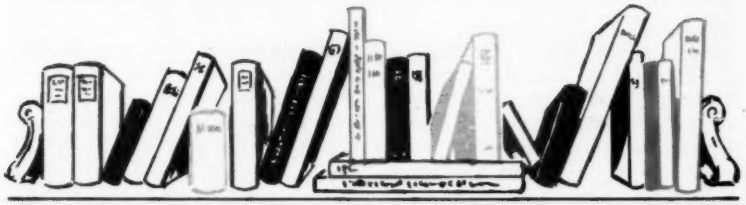
The first airplane purchased by the United States Navy will once again spread wings in Southern California skies, through the devoted efforts of individual members of the Institute of Aeronautical Sciences and representatives of the United States Navy.

As a contribution to the commemoration of the 50th Anniversary of Naval Aviation in 1961, a replica of the Curtiss A-1 Hydroairplane is being planned on the drawing boards and fabricated in the shops of the aviation industry and the Navy.

San Diego, Calif., witnessed the inauguration of Naval Aviation on January 27, 1911, when the first naval aviator, Lt. T. G. Ellyson, USN, flew the first airplane designed to Navy requirements, a Curtiss Hydroairplane, from Spanish Bight.

As a result of the success of this and subsequent flights, the Navy purchased its first aircraft from Glenn Curtiss on May 8, 1911.

Because of the many significant events which occurred during the year 1911, the Secretary of the Navy has designated the entire year of 1961 as the commemorative period for celebrating the Golden Anniversary of Naval Aviation.



WORK SAMPLING

by Robert E. Heiland and Wallace J. Richardson

This month's selection is reviewed by Norman George, NMA manager of research and development.

The basis of cost control is, of course, the measured unit of work. But how do you measure non-repetitive and "intangible" activities? Perhaps the most promising and practical tool developed so far is "work sampling." This method makes use of some basic concepts in statistical inference based upon probability theory. The method is not difficult to master. To do the statistical work is not beyond any manager who has had limited mathematical training. For that matter, it probably is not even necessary for the manager to tackle the limited statistical work involved since, presumably, he can find assistance within the company.

This is a "tool" book. Its sole purpose is to show you why, where, and how to use work sampling. It does this very well. Even those parts of the book which explain the limited statistics involved are models of readability. The book is detailed enough that those unfamiliar with the technique could expect to be able to tackle a study after a reasonably careful study of the content. The procedure is spelled out in step-by-step instructions.

Work sampling is particularly valuable to a surprisingly large number of fields other than the few applications most frequently associated with it up to now. What, basically, is the work sampling method? Briefly this: An analysis of activities and functions performed derived on the basis of random observations of the activity. It can provide such information as: What activities are being performed; how much time is being spent on each activity; how much delay time is being

expended. The value of this information is obvious. The result may be to regroup activities or reorganize the work of a department; reassignment of personnel; or even the elimination of certain functions. Most important, its application is especially applicable to the non-repetitive functions generally considered to be non-measurable. Furthermore, the method is flexible. The degree of precision required in analyzing functions is simply a matter of increasing or decreasing the number of observations, making certain that the observations are taken at random. The basic tool or report used to visualize the results is the control chart from which the data are interpreted.

One of the chief values of the book is its inclusion of eight actual case studies which clearly illustrate the application of the method in a variety of situations. Some of the activities analyzed, for example, are: Materials handling; engineering design and drafting; plant maintenance and construction; punched-card accounting department, and machine shop incentive allowances.

The basic practicality and usefulness of the book can be indicated by the titles of some of the chapters: *What Is Work Sampling? Some Examples of the Use of Work Sampling. Some Theory of Sampling in General. Preparing for Work Sampling. Performing Work Sampling. Sampling and the Law of Averages. Use of the Control Chart in Work Sampling. Selling Work Sampling to Others.*

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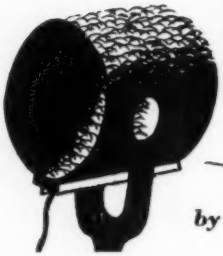


SPOTLIGHT ON WASHINGTON

by Michael S. Roberts

WILL KENNEDY GEE OR HAW?

With only a few weeks before he officially takes over the reins of government, there is a new argument smouldering out of the shambles of the campaign "great debates": Will the Democratic donkey under President-elect Kennedy pull the country to the right or left?

Within a few days after the election Democratic leaders asked friendly correspondents, writers, radio-TV commentators, and business groups, to promote the idea that "Kennedy is really a conservative." This was done by many of them. Purpose was twofold: To try to restore confidence in the U.S. dollar overseas, where it was taking a bad beating on foreign markets, and to keep business and the stock market from any panic moves.

The stories pointed to his family background, his father's large business holdings, and his education. But there is no evidence that he is other than an ultra-liberal, with strong New Dealish leanings.

In more than a decade in the Congress, mostly in the Senate, he has consistently voted with the liberal Democratic majority. A tabulation of his

voting record by COPE (AFL-CIO Committee for Political Education) shows he voted "right," with the liberal bloc, in every instance.

It is on his liberal record that he won—barely—a plurality of the largest vote ever cast in a Presidential election. His advisors in every instance have been from the ranks of the bright, aggressive, young liberal camp.

The country should expect a Kennedy Administration of the Roosevelt-Truman era for the next eight years.

TRENDS CHARTED

Even this early, there are several definite trends already developing as the President-elect puts together the initial pieces of his Administration. Some of his major actions will develop quickly, others more slowly.

Foreign policy will shift very slowly away from Eisenhower's tough stand to a more conciliatory approach toward international tensions, whether between the U.S. and Russia or between free-world countries. Diplomacy will be shifted to a more career-minded staff of negotiators using a "peaceful co-existance" approach. Trade and aid blandishments to countries tempted to swing to the Red orbit will be stepped up.

On the domestic front, the President-elect has many times made his general program clear. There will be strong Administration efforts for large programs of aid to persons in depressed industrial areas; for a major speedup in construction of government dams, power, navigation and flood control projects, for sharp increases in aid to education and government-backed medical aid for the aged, and for some increases in defense spending. He'll ask for a step-up in the minimum wage-hour law, to $1.25 an hour and to bring coverage to more than a million workers for the first time.

There will be renewed support for rural electrification programs, the Tennessee Valley Authority, and over the long run, probably for stepped-up highway building. In general, government will be expanded.

MANAGEMENT HAS A BIG STAKE

Many of the Kennedy Administration programs, both long and short range, are particularly interesting to business. There will be credit loosening moves by the Federal Reserve Board, under strong pressure from the White House, and by bond manipulation by the Treasury Department. These will attempt to make money cheaper and more abundant to spur investment, production, and employment. The government will attempt to prop the value of the dollar by various means in an attempt to keep prices from running away. Whether it can be accomplished in today's highly complex economy is seriously questioned by many fiscal experts.

Federal antitrust agencies—the Justice Department and the Federal Trade Commission—will step up their control of business practices drastically. The FTC is ready to ask for an unprecedented 50 percent budget increase to nearly double its investigative and trial staff. The National Labor Relations Board and regulatory agencies, such as the Federal Power Commission, Civil Aeronautics Board, Interstate Commerce Commission, and others, will be reshaped. Initially, it will be by changing manpower on these commissions under strict White House orders to tighten their control of the regulated industries. Later, a complete overhaul of the system is probable.

More important is a strong movement developing within the Administration, apparently with the backing of the President-elect, to move the government directly into control of industrial pricing and labor-management relations.

A major clue comes from Dr. John K. Galbraith, the top economic advisor to the President-elect. The Harvard economics professor says our economic future should emphasize reappraising industrial pricing. The competitive ability of any country, he says, depends on an "efficient and low cost supply of steel." The dollar problem is "closely involved with price and wage-making in the steel industry," he adds—a clear hint of support for various proposals long pending to inject the government into wage-price policies of major industries.

One of the first of these is the proposal to require major firms to notify the government in advance of any price increase and requiring that prices be defended at public hearings.

Organized labor, which did produce votes for the President-elect in major industrial areas and several key cities, will have a strong call on the new Administration. Kennedy can be expected to give labor what he has promised—minimum wage increase, medical care, depressed areas aid, some others. Some other demands of labor will get Kennedy approval if Congress passes them. But there will be others that the new President will not support.

HOW MUCH WILL KENNEDY WIN?

Congress is the key as to how many of the new President's "New Frontiers" programs become national policy, and in what form.

In most areas, Kennedy will have a friendly Congress, eager to do his bidding. While there will not be a new "100 Days" of frantic law-making reminiscent of President Roosevelt's first term, he will make a determined bid early in the new session of Congress for many of these projects.

He'll get most of them without major changes from Congress. While the slight increase in Re-

publican strength in both houses of Congress makes the legislature more conservative, Democratic congressmen will be less willing to bolt now that their party controls all-important patronage.

When it comes to the more drastic proposals, the coalition of conservative Southern congressmen and Republicans will have plenty of strength to water them down, and in some cases, to block them.

The outlook thus is for a federal government vitally striving through its resources to promote a steady and fixed rate of economic growth and jobs and to build "prestige" for the U.S. overseas, rather than relying on private capital and initiative to provide the jobs and goods.

As a result, there won't be any major business tax cuts nor cuts in top personal income taxes, although lowest bracket taxpayers and small business may be helped. Over-all, however, taxes may have to be increased to pay for the program.

The philosophy of the new President, his advisors, and the key to the road they intend to follow, is tersely stated by AFL-CIO President George Meany in a dissenting opinion in the Report of President Eisenhower's Commission on National Goals. He says:

"Private initiative and incentive are important; state and local governments must expand their roles to meet new needs. But the superior resources of the federal government, collected through fair, equitable and progressive taxes and administered through a truly democratic structure, must be more greatly utilized."

Seminar Notebook

NMA Management Unity Seminars scheduled in Dayton, Ohio, in 1961: **February 5-10** **April 2-7** **June 4-9**

Toward New Horizons

The field of management, and especially the training and development of managers, has been gaining increasing attention. Every day we are exposed to articles, briefs, books, and other literature on new management development tools, techniques, training aids, etc.

Not only is there increasing emphasis and importance placed upon management as a profession, but there is an ever growing interest in such problems as ethics and the manager, and whether he should have an interest in the political order, and to what degree he should involve himself in politics.

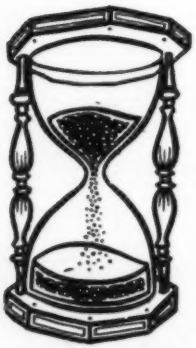
Just recently we have witnessed the publication of two major studies which deal with the effectiveness and validity of our academic institutions and with respect to the education and development of potential management people.

It is evident that all of these questions are of great interest and are important to The National Management Association. They are directly related to the broad objectives of the Association as well as the objectives of all of our affiliated organizations. The NMA recognizes the importance of making available substantial support for advanced study and research. The importance of individual higher level research studies to help all of us in NMA and in industry to improve our effectiveness cannot be overstated.

The NMA sponsored and organized the National Management Association Scholarship Foundation with this purpose in mind.

Next month, MANAGE Magazine will feature a special article dealing with some of these problems, and the logical role of scholarship and fellowship activities, to help define the problems, and come to grips with some of these major issues through the effective unfettered study by outstanding individuals who have dedicated themselves to the field of management.

TIME IS RUNNING OUT



THE AVERAGE AGE of the world's great civilizations has been 200 years. These nations progressed through this sequence:

From Bondage to Spiritual Faith
From Spiritual Faith to Great Courage
From Courage to Liberty
From Liberty to Abundance
From Abundance to Selfishness
From Selfishness to Complacency
From Complacency to Apathy
From Apathy to Dependency
From Dependency back again into Bondage.

IN 16 YEARS our United States will be 200 years old. This cycle is not inevitable—

IT DEPENDS UPON YOU!